NOAA Fisheries Information System Program

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NOAA Strategic Plan

- Goal Areas:
  - **Ecosystems**
  - Climate
  - Weather and Water
  - Commerce and Transportation
- Cross-Cutting Priorities:
  - **Integrated global environmental observation and data management system**
  - Environmental literacy, outreach, and education
  - Sound, state-of-the-art research
  - International cooperation and collaboration
  - Homeland security
  - Organizational excellence

NOAA Program Structure
Goal: Ecosystems

- Line Office Programs:
  - Coastal Resource Management
  - Protected Species
  - Fisheries Management
  - Enforcement
- *Matrix Programs:*
  - *Habitat Restoration*
  - *Coral Reefs*
  - *Protected Areas*
  - *Invasive Species*
  - *Undersea Research and Exploration*
  - *Aquaculture*
  - ***Ecosystem Observing***
  - *Ecosystem Research*

Ecosystem Observing Program

- Supports “Ecosystem” Mission Goal
  - Protect, restore, and manage the use of coastal and ocean resources through ecosystem-based approach to management
- Supports:
  - Integrated Ocean Observing System (IOOS)
  - Global Ocean Observing System (GOOS)

Ecosystem Observing Program Capabilities

- Fisheries Monitoring & Assessment
  - Fisheries-independent surveys
  - Fisheries information system (FIS)
- Protected Species Monitoring & Assessments
- Integrated Ecosystem Monitoring, Assessment, and Forecasting
  - Fisheries observers
- Social Science and Economics Surveys & Assessments
- Data Quality, Technology Transfer, Education & Outreach
- Coastal Habitat Monitoring and Assessment

Ecosystem Observing Program
Principal Activities

- Observations acquisition, assimilation, and stewardship of ocean and coastal data
- Operational assessments and forecasts
- Observation system development
- Data quality, information transfer, outreach, and education

Ecosystem Observing Program
End-State Users

- Academia
- Federal regulatory agencies
- Fisheries scientists
- Fishery management councils
- General public
- International organizations
- Non-government organizations
- Other federal agencies
- State agencies
- State and local governments

Ecosystem Observing Program
User Benefits

- Accurate and timely information on status of NOAA's trust living marine resources and their habitats
  - Users can better develop and plan activities and management actions in compliance with and consistent with federal laws and regulations for the conservation and management of living marine resources

FIS Drivers

- NOAA Annual Guidance Memorandum
- Magnuson-Stevens Fishery Conservation & Management Act (MSA)
- National Environmental Policy Act (NEPA)
- Endangered Species Act (ESA)
- Marine Mammal Protection Act (MMPA)
- Atlantic Tunas Convention Act (ATCA)
- Data Quality Act (DQA)
- Executive Order 12906
- Other authorizing legislation and treaties

NOAA Annual Guidance Memorandum

- NOAA and its customers have critical need for readily available and quality-controlled environmental data to move us in the direction of our strategic objectives.
- NOAA should develop comprehensive, cost-effective, NOAA-wide data collection, quality control, storage and retrieval program.
- NOAA should “Take the Pulse of the Planet” through contributions to the Integrated Global Observing System.

MSA Requirements

- All conservation and management measures:
  - must prevent overfishing while achieving optimum yield from each fishery (Standard 1)
  - must be based upon best scientific information available (Standard 2).
- Fishery management plans must include description of the fishery
  - number of vessels involved
  - type and quantity of fishing gear used
  - species of fish involved and their location
  - any recreational interest in the fishery

MSA Requirements

- Fishery management plans must:
  - specify pertinent data on commercial, recreational, and charter fishing
  - establish standardized reporting methodology to assess the amount and type of bycatch
  - assess type and amount of fish caught and released alive during recreational fishing under catch and release fishery management programs and the mortality of such fish
  - include description of the commercial, recreational, and charter fishing sectors which participate in the fishery
  - quantify trends in landings of managed fishery resource by commercial, recreational, and charter fishing sectors

MSA Requirements

- NOAA Fisheries should cooperate with Coast Guard, States, Councils, and Marine Fisheries Commissions to develop recommendations for implementation of a standardized fishing vessel registration and information management system.

MSA Requirements

Vessel Registration and Information Management System

- Standardize requirements of vessel registration and information collection systems;
- Integrate information collection programs under existing fishery management plans into a non-duplicative information collection and management system;
- Avoid duplication of existing State, tribal, or Federal systems and utilize, to the maximum extent practicable, information collected from existing systems;
- Provide for implementation of the system through cooperative agreements with appropriate State, regional, or tribal entities and Marine Fisheries Commissions;

MSA Requirements

Vessel Registration and Information Management System

- Provide for funding (subject to appropriations) to assist appropriate State, regional, or tribal entities and Marine Fisheries Commissions in implementation;
- Establish standardized units of measurement, nomenclature, and formats for the collection and submission of information; and
- Minimize paperwork required for vessels registered under the system.

1998 Report to Congress

"Proposed Implementation of a Fishing Vessel Registration and Fisheries Information System"

- Developed cooperatively by NOAA Fisheries and its partners
- Provided foundation for NMFS' fisheries statistics program 'initiatives' since FY01
- Approved by NMFS leadership
- Purpose:
  - determine numbers of FTE's and funding amounts required for successful 5-7 year implementation of improvements in state/federal fisheries information systems that would adequately meet requirements for effective stewardship of living marine resources.

NOAA PPBES

- Planning, Programming, Budgeting, and Execution System
  - Process to link NOAA's strategic vision with programmatic detail, budget development, and annual operating plans.
  - A major decision-making process permitting Line Offices, Goals, and Programs to do joint planning and link directly to NOAA's Programming, Budgeting and Execution phases.

FIS Program

- Regional Programs
  - Pacific Coast: PACFIN/Pacific RecFIN
  - Alaska: AKFIN
  - Pacific Islands: WPACFIN
  - Gulf of Mexico: GulfFIN
  - Atlantic Coast: ACCSP
- National Program – NFIS

FIS Program Capabilities

- Fishery monitoring
  - Data collection
  - Data processing
  - QA/QC
  - Statistical estimation
- Fishery information management and reporting

FIS Program
Fishery Monitoring Capability

- Provide complete survey coverage of commercial and recreational fisheries effort, catch, bycatch, biological, economic, and social data.
- Implement standardized fishing vessel registration system (VRS) to identify and track operation, ownership, and performance of commercial and for-hire recreational fishing vessels.
- Implement “best practices” for sample selection, data collection, and statistical estimation.
- Implement nationwide quality standards that maximize the utility, integrity, and objectivity of fisheries data and statistics.
- Assess and report relative accuracy and precision of statistics.
- Collect quantities of data needed for required statistical precision.
- Calibrate as needed to allow geographic or temporal trend analyses.

FIS Program
Information Management Capability

- Integrate state/federal databases with required fisheries information to provide ready access through online web portal.
- Implement new data transfer technologies to assure less burdensome and more timely reporting, delivery, and availability of fisheries information.
- Implement modern distributed data management technologies to efficiently archive, retrieve, and manipulate information.
- Facilitate linkage of effort, catch, by-catch, biological, social, economic, and vessel identity data.
- Facilitate linkage of historical time-series data held by independent state and federal programs in all regions.

Current FIS Program Funding

- Fish Statistics Base – $13.9M
- PACFIN – $3M
- AKFIN – $3.2M
- RecFIN – $3.45M
- GulfFIN –$3.5M
- ACCSP – $3.5M
- AK Groundfish Monitoring – $2.387M
- Expand Stock Assessments – $1M
- Fish Statistics – National FIS – $2.575M

FIS Program Requirements

- NMFS Staff
  - Current: 115 FTEs
  - 100% Requirement: 150 FTEs
- Program Funding
  - Current: $36.5M
  - 100% Requirement: $72M

FIS Program Performance Measures

- Number of major, managed fish stocks with sufficient annual levels of commercial and recreational fishery monitoring to support stock assessment (Goal = 246, Current = 129).
- Number of Fishery Management Plans with sufficiently timely and precise monitoring of commercial and recreational harvest to support in-season closure decisions and/or determination of annual regulatory adjustments (Goal = 44; Current = 16).
- Number of Fishery Management Plans with all required state/federal fisheries information on participation, effort, catch, bycatch, and biological, economic, and sociocultural characteristics fully integrated and readily available through one web-enabled, information portal (Goal = 44; Current = 0).

FIS Program Funding

FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11
$36.5M	$36.5M	$39.5M	$39.5M	$39.5M	$39.5M	$39.5M	$39.5M